Operating Manual

Electronic Wheelchair Scale, class III approved M50010

ADE GmbH & Co.
Hammer Steindamm 27 – 29

22089 Hamburg
GERMANY

☎ +49(40)432776-0
Fax +49(40)432776-10
E-mail: info@ade-hamburg.de

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Components and Features

Keys	Function
ON	To start the scale
OFF	To shut the scale off
ZERO	To set the scale to zero
PRESET TARE	To set a value manually to be tared
HOLD	To fix the weighing result
BMI	To evaluate the BMI (Body Mass Index)
SEMI AUTO TARE	To tare a value automatically
UNITS	To change the weighing unit
CLEAR	Clear indication
ENTER	Confirm indication
0 – 9	Numeric keys for storing tare value or height for evaluation of BMI

Display symbols

Arrows indicating which weighing mode or evaluation mode you have chosen

Installation and use of scale

Your ADE Electronic Wheelchair Scale is a class III approved scale which has been manufactured for medical use in hospitals, by doctors or medical specialists as well as in rehabilitation centres or nursing homes.

The scale is used to evaluate the weight of patients sitting in a wheelchair, able to walk on their own or by using any kind of walking aid or lying on an emergency litter. Due to its high capacity the scale is also used for adipose patients.

The scale is a precision instrument for medical use.
The weighing result is used as an essential basis for medical application decided by doctors or medical personnel in hospitals, nursing homes, rehabilitation- and dialysis centres.

In order to achieve the best possible results kindly read and follow the Operating Manual in all respects.

Check carton contents

- Platform Scale equipped with 1 ramp
- Indicator and cable with jag connector system
- Mains adapter
- Operating Manual including Certificate of Conformity

Attention

Carefully check identity of the serial numbers on the platform and the indicator which is mandatory for medical use of the scale.

Power Supply of the scale

By mains adapter (12V 300mA) and rechargeable batteries (power-pack).

- The battery pack is already installed in the display.
- Charge the power-pack by using the mains adapter and connect the jack firmly to the display.
- Complete first charging of power-pack needs 24 hours.
- If scale is used on batteries and display shows **Lo** power-pack needs to be recharged.
- Please make sure the local voltage supply corresponds to the indication printed on the adapter.

Positioning of the scale

- Place the scale on a level surface.
- Make sure all four feet underneath the platform have direct contact to the floor.
- The spirit level of the scale (next to the handle) is an additional tool to make sure the scale is perfectly positioned and offers best results when the air bubble is centred.
- Connect the display to the platform by using the jag connector.

- The alignment of the platform must be checked and corrected if necessary after storage or every time the location of the scale was changed.

Use of the scale where approved scales are imperative

The scale corresponds to standards and requirements of the European Directives 90 90/384/EEC and 93/42 EEC.

Connecting additional equipment

Conditions for connecting additional equipment are fulfilled via RS 232.

Metrologic requirements for additional equipment like printer and PC have to be metrologically marked by **M** on green background**.**

Quality check

ADE products correspond to the applicable EC Directives and European standards to manufacture and distribute world-wide weighing and measuring equipment as per the latest technical standard offering a long lifetime and continuous reliability.

CE 06 0044

This symbol stands for fulfillment of the European Directive 93/42 EEC for medical devices and declares the conformity as per this Directive.

Due to the certification as per ISO 9001/2000 the high standards for Research & Development, Manufacturing, Sales and Service requirements are fulfilled. A copy of our ISO Certificate is available on request.

III

Approved scales class III respecting the standards of the Directive 90/384 EEC for non automatic scales are carrying this symbol.

M

Scales carrying this symbol in combination with class III sign are calibrated in accordance with the high precision standards laid down in EC Directive 90/384 EEC.

CE 06 0110

Products carrying this symbol meet the requirements of:

- Directive for non automatic scales for medical use 90/384 EEC
- Applicable EC Directive governing the electromagnetic compatibility (89/336 EEC).
- Directive 73/23 EEC for low voltage regulations

EC type approval

The scale has been EC type approved under Nr. **NMI T6309 revision 0**

Use of the scale

Weighing

Press **ON** key for min. 3 seconds to power the scale. After start up an automatic function test is done which ends in switching into `0.00´ position in kg weighing mode. The scale is now ready to weigh. In case of any irregularities in weighing procedure the display will show the error indication Err xxx.
In this case go to chapter Cleaning, Maintenance and Re-approval, see point Service.
After `0.00´ is displayed properly the scale can be loaded. Make sure there are no movements during weighing procedure.
The correct weight can be read on the display.

Body Mass Index (BMI)

The Body Mass Index is the ration between height and weight squared. The BMI is meanwhile accepted world-wide – also by WHO (World Health Organization) – helping to evaluate the state of nutrition as well as the state of health of a person. The result is a tolerance value.

As the exact body length is one essential value we recommend to measure the patient by using in addition to your ADE scale the ADE height measuring rod model MZ 10019.

Start the scale as already described and take the weight.. Then press the **BMI** key and use the numeric key to indicate the height of the patient in cm. Confirm by using the **ENTER** key. The BMI is calculated and displayed.

Evaluation of the Body Mass Index

BMI below 18
- The patient is not showing enough weight. Control nutrition to put on weight.

BMI between 18 and 20
- The patient is slightly under weighed. If he feels well there is no need for a change..

BMI between 20 and 25
- The patient is in the range of normal weight.

BMI between 25 and 30
- The patient is slightly overweighed. A reduction of weight is indicated or, is necessary if the state of health is already affected (e.g. diabetes, high end blood pressure, heart diseases).

BMI over 30
- Reduction of weight is imperative. Also to visit a doctor is highly recommended.

Tare functions

The **SEMI AUTO TARE** key is used for weighing patients in different types of wheelchair models (for example in their own wheelchair) which means the weight of the wheelchair is unknown. In this case weigh empty wheelchair first. Activate the SEMI AUTO TARE key and the weight of the wheelchair is stored, the indication in the display set back to zero. Is the patient now weighed sitting in his wheelchair, only the weight of the patient is indicated.

By using the **Preset TARA** key any requested value can be put under **tare** by manually keying in this one tare value using the numeric keys. Confirmation is done by the **ENTER** key and can be re-activated on request. This function is useful whenever patients are usually weighed in the same wheelchair and therefore the value to be tared is a fixed one.

Set zero

By using the **Zero** key eventual irregularities occurred after start up the scale can be compensated by setting the display back to zero.

Hold function

Press the **Hold** key in case of unstable readout which might occur in case of too heavy agitation on the platform. The scale will hold the result displayed. After leaving the scale the fixed weight is still displayed and can be noted. Deactivate the HOLD function by pressing the key again.

Unit function

By using the **Units** key you may select the weighing mode (kg, lbs, st).

Cleaning, Maintenance and Re-approval

Cleaning

Before cleaning make sure the scale has been disconnected from the socket.
For cleaning just use a damp cloth or common disinfection products.
Do not use any aggressive cleaning fluids.
Make sure no water or cleaning fluid penetrates the scale.

Service

Display indication **Lo** Recharge the power-pack by connecting the mains adapter to the display.
Display indication **ErrL** Check correct positioning of the scale (see chapter installation & use of scale) and make sure the scale is completely unloaded.
Display indication **Err** Function test does not automatically lead to `0.00´. Try **zero** setting key. If display still indicates Err the scale needs calibration. Please contact your local dealer or service partner.
Display indication **ErrP** Severe failure of weighing system. Please contact your local dealer or service partner.

Safety instructions

Do NOT use the scale

- If the mains adapter shows visible damages
- If mains adapter is not working properly
- After long storage in humid places

In those cases contact your local dealer or service partner.

Storage and Transport

Keep all original parts and pieces for an eventual sending back of the scale in order to avoid any possible damage during transport which automatically leads to no warranty.

Disconnect all cables before transport to avoid unnecessary damages.

Warranty – Liability

ADE will repair or replace this product within a period of 2 years from date of delivery applying to defects occurred due to poor material or workmanship (presentation of invoice is necessary). All moveable parts – batteries, cables, mains units, rechargeable batteries etc. – are excluded. Warranty does not include natural wear, damages caused by incorrect or negligent handling, overuse or unsuitable or improper storage. The cost of transport will be borne by the customer should the equipment be located anywhere other then the customer's premises. In the event of transport damage, claims under warranty can be accepted subject to using the complete original packaging and the equipment secured the way it was packed and secured originally. All the packaging should therefore be retained.

Any warranty claim will be rejected if the equipment is opened by persons not authorized expressively by ADE to do so.

Customers abroad are kindly requested to contact their local dealer for any warranty claim, customer service and spare parts.

Re-approval

For re-approval of the scale as per the national directives governing the standards for non automatic scales as well as for medical devices please make sure to contact only authorized companies or persons. On the CE sign you are finding the number of the notified body (0110) and the year of the first approval of the scale. A re-approval becomes necessary

- IF the approval seal has been damaged
- AFTER repair of an approved scale
- OR after expiry of the validity of the first approval which is nationally regulated. For further information please contact your Weight & Measure Institute.

Technical Data

Display:	Easy to read 25 cm LCD Display
Housing of Display:	Robust plastic housing
Power supply:	Mains & rechargeable batteries (power-pack)
Function keys:	20 keys (see chapter components & features)
Interface:	RS 232 with automatic Baud rate selection
AD sampling rate:	Triple selection
Zero setting:	Automatic
Weighing station:	
Max. Capacity:	300 kg / 660 lbs
Graduation:	100 g / 0.2 lb
Access to ramp:	44 mm
Dimensions:	915 x 55 x 800 mm
Total weight:	22 kg
Working Temperature:	10 to +40 degrees Celsius

Supplier:

ADE GmbH & Co.
Hammer Steindamm 27 – 29
22089 Hamburg
Germany

Certificate of Conformity

D

... entspricht dem in der Bescheinigung über die Bauartzulassung beschriebenen Baumuster. Die Waage erfüllt die geltenden Anforderungen folgender Richtlinien:
90/384/EWG über nichtselbsttätige Waagen,
93/42/EWG über Medizinprodukte und die Europäische Norm DIN EN 45501.

DK

... svarer til det typemonster, som er beskrevel i attesten over typegodkendelsen. Vaegten opfylder de gaeldende krav fra folgende direktiver:
90/384/EOF om ikke-automatiske vaegte,
93/42/EOF om medicinprodukter og den eurpaeiske standard DIN EN 45501.

GB

… corresponds to the type described in the certificate in respect of type approval permit. The scales conform to the applicable requirements of the following directives:
90/384/EEC on non-automatic scales,
93/42/EEC on medical products and European standard DIN EN 45501.

F

… conforme au modèle type décrit dans le certificat d'homologation. Cette balance est conforme aux directives et normes suivantes : directive 90/384/CEE concernant l'harmonisation des Etats membres relative aux instruments de pesage à fonctionnement non automatique ; directive 93/42/CEE sur les produits et appareils médicaux ; norme européenne DIN EN 45501.

I

… è conforme al campione descritto nel certificato di omologazione costruttiva. La bilancia risponde ale vigenti esigenze poste dalle seguenti direttive:
90/384/CEE sulle bilanci non automatiche,
93/42/CEE sui prodotti medicali e la norma europea DIN EN 45501.

RUS/UA/BY

СертиФикат качества ISO 9001

E

… corresponde a la muestra descrita en el certificado sobre el permiso de construcción. La báscula cumple las exigencias de las siguientes directrices :
90/384/CEE sobre básculas no automáticas
93/42/CEE sobre productos médicos y
la norma europea DIN EN 45501.

S

... motsvarar beskrivningen enligt mönstertillståndet. Vágen uppfyller gällande krav i direktiven angáende icke automatiska vágar:
(90/384/EWG), 93/42/EWG över medicinska produkter samt den europeiska normen DIN EN 45501.

N

... er i samsvarmed monsteret som er beskrevet i sertifikatet over konstruksjonstype-godkjennelsen. Vekten oppfyllerde gjelende kravene i folgende direktiver:
90/384/EEC om ikke-automatiske vekter,
93/42/EEC om medisinske proukter og den europeiske standarden DIN EN 45501.

FIN

... on tyyppihyväksyntätodistuksessa kuvatun raken nemallin mukainen. Vaaka täyttää seuraavien direktiivien voimassa olevat vaatimukset:
90/384/ETY ei-automaattisista vaaoista,
93/42/ETY lääketieteellisistä tuotteista ja Euro-normi DIN EN 45501.

NL

... komt oveeen met de in de verklaring van over de modelkeuring beschreven constructie. De weegschaal voldoet aan de geldende eisen van de volgende richtlijnen:
90/364/EEG inzake niet-automatische weegschalen 93/42/EEG inzake medische hulpmiddelen en de Europese norm DIN EN 45501.

P

… corresponde ao padrão de construcão descrito no certificado de homologacão de tipo de construcão. A balanca satisfaz os requistios aplic#aveis da directiva sobre balancas não automáticas 90/384/CEE e 93/42/CEE sobre artigos médicos do Conselho, bem come da norma Europeia DIN EN 45501.

GR

... ανταηοκριεται στο καταοκενατικο προτθπο πον περιγραφεται στην εγκριτκη βεβαιωση τον κατασκεναοτικον τροπον. Η ζνγαρια εκπληρωει τις προνποΟεσεις των ακολονΘων Οδπγιων:
90/384/ΕΟΚ περι μη αντοματων ζνγαριων,
93/42/ΕΟΚ περι ιατρικων προιοντων, και την Ενρωπαικη ΠροδιαγραΦη DIN EN 45501.

Konformitätserklärung
Overensstemmelsesttest
Declaration of conformity
Certificat de conformité
Declaration de conformidad
Dichiarazione di conformità
Försäkran om överensstämmelse
Konformitetserklaering
vaatimuksenmukaisuusvakuutus
Verklaring van overeenkornst
Declaracao de conformidade
Δηλωση Συμβατστητας

Die nichtselbsttätige Personenwaage
The non-automatic personal scales
Le pèse-personnes non automatique
La bilancia pesapersone nn automatica
La báscula no automàtica pesapersona
Den ikke-automatiske personvaegr
Den icke-automatiske personvekten
Ei-automaattinen henkilövaaka
De niet-automatische personenweegschaal
A balanca näo automática para pessoas
Η μη αντοματη ζνγαρια ατομων

ADE M50010

EG-Bauartzulassung NMIT6309revision 0

EC type approval NMIT6309revision 0

Homologation CE NMIT6309revision 0

Omologazione del tipo costruttivo CEE NMIT6309revision 0

Homologatión CE NMIT6309revision 0

EF-typegodkendelse NMIT6309revision 0

EG-kontroll NMIT6309revision 0

EF-konstruksjonstype-godkjennelse NMIT6309revision 0

EY-tyyppihyväksyntä NMIT6309revision 0

EG-modelkeuring NMIT6309revision 0

Homologacao CE de tipo de construcão NMIT6309revision 0

Αδεια καταοκεναοτικον τροπον Ε.Κ. NMIT6309revision 0

ADE GmbH & Co.
Hammer Steindamm 27 – 29, 22089 Hamburg
Germany

Hamburg, Januar 2004
Andreas Schmitt
Geschäftsführer

☏ +49(40)432 776 - 0
🖷 +49(40)432 776 - 10
💻 info@ade-hamburg.de